

A New Station for *Trichomanes Petersii*

E. W. GRAVES

On the 24th of October, 1916, Mr. A. H. Howell, of the United States Biological Survey, and myself started on a trip toward the south end of Sand Mt., Alabama. Sand Mt. is an elevated plateau ten miles wide, extending from near the Tennessee line southwest about one hundred miles into Alabama. It lies about one thousand feet above the Tennessee River.

The mountain is cut up by many deep gorges which empty the water of the tableland into the Tennessee River which lies to the west. Growing along these cool, damp gorges one will find a varied flora. There occurs a strong mingling of types that are at home in the Alleghenian area of the adjoining states and of North Carolina with plants of the lower ranges within the Carolinian area, the like of which has not been observed in any other part of the mountain region of Alabama. Among the woody plants peculiar to the Alleghenian area, *Rhodendron catawbiense* and *Tsuga canadensis* are the most prominent. Among the more rare ferns one finds *Asplenium Bradleyi*, *A. montanum*, *A. pinnatifidum*, *A. Trichomanes* and occasionally *Pellaea atropurpurea* growing along the sandstone cliffs, and lower down, where the creek bed has been cut into the limestone shales, *Camptosorus rhizophyllus* and *Dryopteris spinulosa intermedia* occur. Where the sandstone is kept continuously wet one will find an occasional bed of *Trichomanes radicans*.

On the 29th, Mr. Howell and I decided to make a camp in the Santy Creek gorge which in this place is the boundary between Jackson and Marshall Counties. Of course, water would be the first necessity in a camp; I therefore set out to find a spring. After locating a ravine which emptied into the gorge, I followed it for

several rods, climbing over moss-covered rocks and fallen trees. I finally reached a pool of water at the foot of a gigantic rock on one side and a rocky cave on the other, with only a passage of a few feet between for the water coming down the ravine to pass through. Between the cave and the rock the water passed down a steep incline, striking a pile of loose rocks at the bottom, causing it to send a spray over the rock.

On the lower corner it appeared a cube had been broken from the top of the rock, making a shady nook in which grew a dense colony of *Polypodium vulgare* and just below, on two sides of the rock, some two or three feet above the pool of water, grew several colonies of *Trichomanes Petersii*. I at first thought it was moss, but on closer examination I found it to be the rare fern.

The accompanying photograph shows this rock with the writer standing in the gully beside it. The little *Trichomanes* is too small to be made out in the picture, but there is one colony just in front of my hand, a smaller colony lower down and back of my hand, and a larger colony on the face of the rock on the side toward the large tree, which covers a space perhaps two feet wide and four long, extending from the upper edge just under the *Polypodium vulgare* down nearly to the ground. At my feet is the pile of rocks against which the water strikes, making a spray which keeps the large rock damp. Very little water was running at the time of my visit.

Trichomanes Petersii had been found only in Winston, Etowah and Marion Counties, but my find adds a fourth station for Alabama.

LONG ISLAND, ALA.

Through the courtesy of Dr. B. L. Robinson, of the Gray Herbarium, and the kindness of the artist, Miss Una L. Foster, the JOURNAL is able to present the accompanying detailed illustration of *Trichomanes Petersii* (Plate 3). All the drawings except Fig 1.



Ravine in Buck's Pocket: *Trichomanes Petersii* growing on rock in fore-ground.
(Photograph reproduced by courtesy of the Bureau of Biological Survey, U. S. Dept. of Agriculture)

were made from the type specimens collected by Judge Peters in 1853. D. C. Eaton in *The Ferns of North America*, 1: pl. 24, gives a life-size drawing of a plant of *T. Petersii* and an enlargement of a single frond showing an involucre with the receptacle much more exserted than in any specimens I have seen and more than his description calls for. He does not state where the material from which this drawing was made came from. Miss Slosson in *Bull. Torrey Bot. Club* 41: pl. 7 has a good photographic illustration of specimens from Santo Domingo. But, so far as the editors are aware, our plate is the first in which the species has been figured in full detail. C. A. W.

Explanation of Plate 3: Fig. 1, plant, natural size, from specimen collected at Santy Creek gorge, Marshall Co., Ala., by E. W. Graves, Nov., 1916; Fig. 2, fronds $\times 2$; Fig. 3, portion of edge of frond, showing hair and "false vein" $\times 45$; fig. 4, portion of lip of involucre $\times 45$; Fig. 5, involucre $\times 10$; Fig. 6, portion of receptacle and sporangia $\times 30$; Fig. 7, sporangia $\times 45$; Fig. 8, spores $\times 45$.

The Ferns of the Lake George Flora, N. Y.

IV

STEWART H. BURNHAM

ATHYRIUM THELYPTEROIDES (Mx.) Desv.

Moist woods; frequent. Aug.—Oct.

This fern seems to be generally distributed: but is not very abundant at any station.

ATHYRIUM FILIX-FOEMINA (L.) Roth.

Woods, fields and roadsides in moist shaded places; abundant. July—Sept. Very variable.

The var. **Michauxii** (Spreng.) n. comb.,¹ with narrow fronds, has been found at Luzerne (Peck); and Dark Bay, Lake George (Hulst).

¹ The synonymy of this variety is as follows: *Aspidium angustum* Willd., Sp. Pl. 5: 277. 1810. *Asplenium Michauxii* Spreng. Syst. 4: 88. 1827. *Asplenium Filix-foemina*, var. *Michauxii* Mett. Aspl. 199. 1859. *Athyrium asplenioides*, β *angustum* Moore, Ind. Fil. 179. 1860. *Asplenium Filix-foemina*, var. *angustum* D. C. Eaton, Ferns of the Southwest in Bot. Wheeler's Exp. 330. 1878. *Michauxii*, being the earliest varietal name given to the plant, should be used, under present nomenclatorial rules.